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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/807,625

03/24/2004

Krishna M. Ravi

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7590

09/28/2006

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EXAMINER

NEUDER, WILLIAM P

ART UNIT

PAPER NUMBER

3672

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/807,625

Applicant(s)

RAVI, KRISHNA M.

Examiner

William P. Neuder

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-22,26-43 and 47-61 is/are pending in the application.
- 4a) Of the above claim(s) 12 and 33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-11,13-22,26-32,34-43 and 47-61 is/are rejected. .
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,5-9,14-20,22,26-32,35-41,43 and 47-61 are rejected under 35 U.S.C. 102(b) as being anticipated by Gano 5,507,346.

As to claims 1 and 14, Gano discloses (figures 1-3) a method of casing a wellbore comprising providing a casing with a sleeve 26 of stress absorbent material coated thereon and surrounding at least a portion of the casing. The stress absorbent material comprises fibers. The coated casing is placed in the well. As to claims 5,16,26,37,47 and 53, the coating 48 is on the interior surface. As to claims 7,17,28,38,49 and 55, the coating 38 is on the exterior surface. As to claims 8,18,29,39,50 and 56, there is no step of coating and the claims actually call for a coated sleeve. How the coating is applied is not material. As to claims 9,19,30,40,51 and 57, the coating comprises fiber and resin (see col. 8, lines 41-45). As to claims 20,31,32 and 41, a casing collar 34 is connected to the end of the casing. The casing collar is a hollow cylindrical shaped housing. As to claims 22 and 35, Gano discloses a method of reducing transmission of stress from a casing to a cement sheath comprising providing a casing comprising a sleeve 26 having a stress absorbing coating (38,48) surrounding a portion of the casing, placing the casing into the wellbore 10 to form an

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. annulus and placing cement 14 into the annulus and allowing the cement composition to set within the annulus to bond the casing to the formation (col. 8, lines 2-4). As to claims 43 and 52, Gano discloses a casing comprising a sleeve 26 having a stress adsorbing coating 38,48 surrounding a portion of the casing. As to claims 58-61, the casing is to be used in multi-lateral wells. Multi-lateral wells are high stress areas. Therefore, the method comprises determining a high stress area of a formation and placing the casing in the high-stress area.

Claims 1,6,8,9,22,27,29,30,43,48,50 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Bol 4,716,965.

Bol discloses (figure 1) a method of casing a well comprising providing a casing comprising a sleeve 1 having a stress absorbing coating 5 surrounding at least a portion of the sleeve, placing the casing into the well 2. As to claims 6,27 and 48, the coating 5 is on the exterior surface. As to claims 8,29 and 50, there is no method step of coating claimed and the claim calls only for a coated casing. How the coating is applied is not material. The coating could be applied in any manner and still produce a coated casing. As to claims 9,30 and 51, the coating comprises a resin or elastomer (col. 2, lines 26-33). As to claim 22, Bol discloses a method of reducing transmission of stress from a casing to a cement sheath comprising providing a casing comprising a sleeve 1 having a stress absorbing coating 5 surrounding a portion of the sleeve, placing the casing into the well to form an annulus and placing cement 3 into the annulus and allowing the cement composition to set within the annulus to bond the casing to the formation (col. 2,

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lines 40-62). As to claim 43, Bol discloses a casing comprising a sleeve 1 having a stress absorbing coating 5 surrounding a portion of the sleeve.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 5,26 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bol in view of Gano (described above).

Bol does not disclose a coating on an interior surface. Gano teaches a coating on an interior surface to provide wear protection against contact from various tools lowered into the casing (col. 9, lines 35-44). As it would be advantageous to have wear protection, it would have been obvious to modify the method and apparatus of Bol to have an interior coating in view of Gano's teaching that an interior coating prevents wear.

Claims 10,11,13,21,34 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gano (described above).

Gano discloses a casing collar 36 that is a hollow cylindrical shaped housing but does not disclose the coating being placed on the housing. Gano teaches that the coating provides additional wear resistance (col. 10, lines 19-23). As it would have been advantageous to have wear protection on the casing collar, it would have been obvious to modify Gano to have a coating on the surface of the casing collar to provide wear support.

Response to Arguments

Applicant's arguments filed 8/22/06 have been fully considered but they are not persuasive. Applicant argues that Gano does not disclose that the casing coating surrounds at least a portion of the sleeve because the casing coating is in a helical pattern. This is not understood; clearly the helical casing coating 38 surrounds the entire sleeve and therefore clearly surrounds at least a portion of the sleeve. Applicant further argues that the coating of Bol is not a stress absorbing material. With respect to claims 14,35 and 52 that add that the stress absorbing material is fibers, these rejections have been dropped. In col. 1, lines 60-66, Bol states a sheath of an elastomeric foam capable of remaining resilient after compression thereof by the hydrostatic pressure of a cement slurry. Any sheath capable of remaining resilient after compression is a stress absorbing material. Last applicant argues that it would not be obvious to modify Gano to include a layer of material on the casing collar. Applicant supports this by stating that the collars 36 are not formed from drillable materials. While

this is true, this has no merit on weather it would be obvious to provide a wear resistant layer on the collar. Clearly, any downhole string section could be provided with a wear resistant layer to protect it.

This application contains claims 12 and 33 drawn to an invention non-elected with traverse in Paper No. 4/17/06. While these claims were originally restricted, if they were to now be reincorporated, they would present 112 problems due to the nature of the claim amendments.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Neuder whose telephone number is 571-272-7032. The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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William P Neuder
Primary Examiner
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W.P.N.